EXTENDED BASIC PROGRAMMING LANGUAGE

Extended BASIC is a leadership programming language available in a Solid State Command Module for the TI-99/4. Features in the language make it easier and faster to write both serious programs and entertainment programs. Programs written in regular TI-99/4 BASIC generally will run in Extended BASIC without any conversion. With the optional RAM expansion box, there is a total of 40K bytes of memory available.

FEATURES:

o Control of Up to 28 Moving Objects (Sprites) From BASIC

Formerly, control of moving objects required detailed programming in low-level assembly language. But now it is possible to define colored objects (up to 32 x 32 pixels in size), and give them an X and a Y velocity, all from BASIC. It is even possible to detect the coincidence of two objects from BASIC. This leadership feature allows action packages to be programmed with very little effort.

o Subprograms

This highly requested feature lets a programmer write true subprograms that can have arguments passed to them and have their own local variables. This allow programs to be smaller and eliminates a frequent source of hard-to-find mistakes duplicate variable names. This feature also saves progamming effort because the same subprogram (say, a sorting routine) can be used in many different applications without any recoding.

o Print Using

This powerful feature makes it easy to format neat columns of data on the display or printer. One can easily align decimal points and add dollar signs as well.

o Display At and Accept At

This feature makes it easy to display or input information from any location on the display screen. This is particularly useful for filling in forms of all kinds. This feature also writes information to the screen much faster than the HCHAR or VCHAR statements in regular TI-99/4 BASIC.

o Chaining of Programs

With this feature, it is possible for one program to load and run another program from disk. This allows programs to be segmented into small chunks to fit into a limited RAM memory space.

o Complicated IF/THEN Statements

This convenient, space-saving feature allows full statements in the THEN and ELSE clauses. It also allows Boolean expressions (AND, OR, etc.). For example, this complex statement is now possible:

```
IF A  AO AND (B  10 OR B  = O) THEN A = A + 1 ELSE A = A + 2
```

o Error Handling

This feature intercepts an execution time error that would otherwise be fatal. For instance, it is possible to write a highly human-engineered program that recovers from user mistakes such as entering a letter instead of a number, dividing by zero, or inserting the wrong disk in the system.

o Size

This feature quickly allows a programmer to determine how much memory his program is taking.

o Multiple Statement Line With Tail Remarks

This feature saves time and memory space. For example:

```
10 FOR I = 1 to 10::PRINT I;::NEXT I::END!ANOTHER PROGRAM
```

o Merge

This feature merges two BASIC programs together. This makes it easy for a programmer to merge a "canned" subroutine, such as a graphing or sorting routine, into his main program.

o Auto Boot From Disk

When Extended BASIC is selected from the TI-99/4 menu screen, the computer will automatically load and run a turnkey program from disk without further user intervention - if the program is present.

o Protected Programs

With this feature, it is possible to save a program in a form in which it can't be easily listed or copied. This protects your investment if you have developed software you are planning to sell.

o Speed

Many functions have been speeded up from TI-99/4 BASIC. These functions include PRINT, SIN, COS, TAN, SQR, LOG, and EXP. Some functions are slower than in regular BASIC, including the NEXT statement. On the balance, however, most realistic programs (such as sorting programs) run faster in Extended BASIC than they do in regular TI-99/4 BASIC.